

Work Order ID 161427

Tuesday, May 16, 2017 7:56:53 AM

161427

Page 1

Item ID: D2847

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Lug

Start Date: 5/16/2017 Start Qty: 12.00

12

Cust Item ID:

Required Date: 5/24/2017 Req'd Qty: 12.00

12

Customer:

Reference: SCHEDULED

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D2847

Rev C

100

0.00

100

BAND SAW

Bandsaw

Memo

0.00

Jeaspa Bandsaw

Cut blanks: 6.25" Note: 1 Blank makes 4 parts

3

0

DAS
20
9-89

17-05-17

110

0.30

110

HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

2.30

HAAS CNC vertical machine #1

Machine per folio D2847

12

1

DAS
20
9-89

17-05-17

120

0.00

120

QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

12

0

DAS
20
9-89

17-05-17

NCR →

DQA:

Date:

2017-05-25

QA Closed:

Date:

MAY 24 2017

WORK ORDER NON-CONFORMANCE / UPDATE

Work Order update only ☐

Work Order: <u>161 427</u>		DISPOSITION		AGAINST DEPARTMENT/PROCESS					
Part No. <u>D2847</u>		Rework ☐		Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐		
NCR No. <u>17-6439</u>		Scrap ☒		Machining ☒	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐		
		Use-as-is ☐		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐		
		Suspected Unapproved ☐		Large Fab ☐	Composite ☐	Supplier ☐			
Date: <u>17-05-17</u>		Step #: <u>110</u>		QTY Effective: <u>1</u>			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				DAS 9 9-89 MAY 19 2017	
Put the jaws in the wrong way on the vise causing the chamfer tool to make mark in the part				Scrap & Replace <u>B 135 463</u>				Completed By DAS 20 9-89 17-05-17	
								Lead hand / Supervisor Approval Verification	
								B.e 17-05-17	
								QC / QA Coordinator Approval	
								DAS 38 9-89 MAY 19 2017	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☒	Positioned Wrong ☒				
Design ☒	Operator ☒	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER :							

Work Order ID 161427

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161427

Page 2

Item ID: D2847 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Lug
Start Date: 5/16/2017 Start Qty: 12.00 ***12*** Cust Item ID:
Required Date: 5/24/2017 Req'd Qty: 12.00 ***12*** Customer:
Reference: SCHEDULED

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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130	QC8- Inspect parts - second check	0.00							DAS 14 9-89
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130

QC

Quality Control

Memo

0.00

140

140

Small Fab

Small Fab

Small Fab

Memo

Tumble to remove rough edges. Deburr any rough edges after tumbling

C'sink as per Dwg D2847

0.00

0.00

150

150

QC

Quality Control

QC5- Inspect part completeness to step on W/O

Memo

0.00

0.00

12

DAS
38
9-89

MAY 23 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
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Misidentified ☐	Past Due ☐																																																																

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 *160* HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.46				12	0	17-05-23.	38 34 9-89
170 *170* Powdercoat Powder Coating	White Gloss(Ref: 4.3.5.1) per QSI005 4.3-Alum M 139176 Memo START TIME: 9:30 OVEN TEMPERATURE: FINISH TIME: 10:00	0.00 0.12				12	0	17-05-23.	38 34 9-89
180 *180* QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00				12			DAS 38 9-89 MAY 23 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

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Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong				
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions				
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance				
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect				
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing				
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved				
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing				
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish				
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread				
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence				
Past Expiry Date ☐	☐ Manufacturing Process	OTHER :							
Misidentified ☐	☐ Past Due								

Work Order ID 161427

Tuesday, May 16, 2017 7:56:53 AM

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Page 4

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Item Name: Lug
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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190 *190* Packaging Packaging	Identify as per dwg & Stock Location: <u>St</u> Memo	0.00 0.00				<u>12</u> DAS 6 9-89		<u>MAY 23 2017</u>	
200 *200* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00						<u>17/5/23</u> 	

**DAS
21
9-89**MAY 23 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER : _____							

Picklist Print

Tuesday, May 16, 2017 7:56:56 AM

Page 1

Work Order ID: 161427

Parent Item: D2847

Parent Item Name: Lug

Start Date: 5/16/2017

Required Date: 5/24/2017

Start Qty: 12.00

Required Qty: 12.00

Comments: IPP F00.06.22Removed P/O for powder coatEC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6B0.375X02.000 6061-T6 Bar .375 x 2.00		Purchased	No			100	f	15.8970	0.1333	1.6837895		DAS 20 9-89	17-05-17
				<u>Location</u>		<u>Loc Qty</u>	<u>Loc Code</u>						
				MAT		15.897							
				M135463		15.897							
										1.647' + .533'			

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
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Misidentified ☐	Past Due ☐																																																																

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

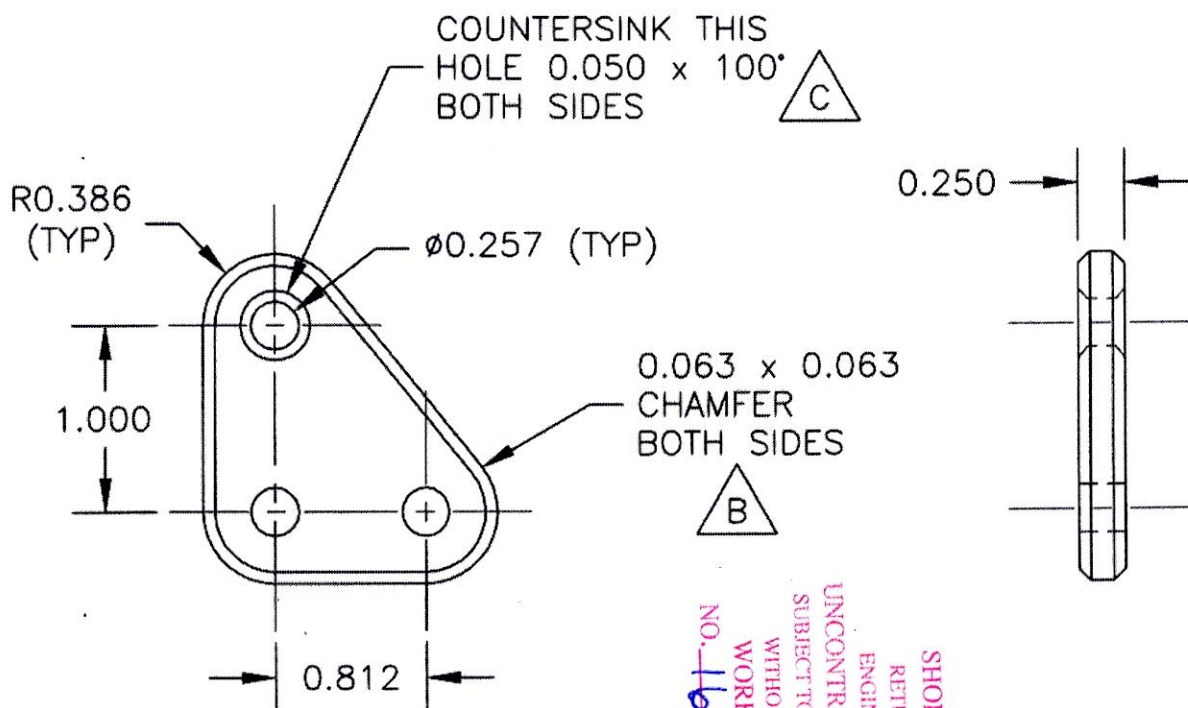
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
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DESIGN <i>KE</i>	DRAWN BY <i>KE</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>KE</i>	APPROVED <i>KE</i>	DRAWING NO. D2847	REV. C SHEET 1 OF 1
DATE 99.02.15	TITLE LUG	SCALE 1:1	
A	98.11.04	NEW ISSUE	
B	99.01.07	ADD CHAMFER	
C	99.02.15	ADD COUNTERSINK	

RELEASED
99.09.01 *KE*



1705-16
NO. 16427 MS
WORK ORDER
WITHOUT NOTICE
SUBJECT TO AMENDMENT
UNCONTROLLED COPY
ENGINEERING
RETURN TO
SHOP COPY

MATERIAL: 6061-T6 OR 6061-T651 (QQ-A-225/8 OR QQ-A-200/8
OR QQ-A-250/11)
FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

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